

AMEREN CORPORATION

Shareholder Proposal: Report on Plan and Progress in Reaching Goals to Reduce Exposure to Coal Risks

AMEREN REMAINS HEAVILY DEPENDENT ON COAL-FIRED GENERATION BUT IT HAS NOT DISCLOSED TO INVESTORS HOW IT WILL MITIGATE THE FINANCIAL AND REGULATORY RISKS FROM ITS RELIANCE ON COAL

As You Sow, on behalf of shareowners, filed a resolution requesting that Ameren's Board of Directors report to shareholders: "on plans to reduce our company's exposure to coal-related costs and risks, including progress toward achieving specific goals to minimize commodity risks, emissions other than greenhouse gases, costs of environmental compliance, and construction risks."

Ameren faces significant financial risks due to its reliance on coal:

- 1. Increasing price pressures and price volatility for coal;
- 2. Competition from low-cost natural gas and alternative generation sources;
- 3. Increasing capital costs for emissions control; and
- 4. Cost and technical feasibility of carbon capture and storage for coal plants.

Introduction

Ameren serves over 2.4 million electric and 938,000 gas customers in Missouri and Illinois. It owns two regulated electric utilities, Ameren Illinois and Ameren Missouri, and a holding company for merchant generation, Ameren Energy Resources Co., LLC. Ameren's merchant generation business sells power into the MISO and PJM markets.

The company relies on coal for 85% of the power generated by its regulated fleet and 98% of the power from its merchant fleet. Fitch Ratings ranked Ameren second among the top ten U.S. utilities with coal plants lacking SO_x controls that are at risk of closure; 25% (2,609 MW) of Ameren's total coal capacity is deemed at risk.

All three major ratings agencies have recently downgraded Ameren Energy Generating Company, Ameren's merchant business segment:

- Moody's Investors Service downgraded the senior unsecured rating to Ba2 from Ba1 with a negative rating outlook. According to Michael G. Haggarty, Senior VP at Moody's, the downgrade "reflects the worsening financial prospects for this predominantly coal-fired generating company as low power prices, higher fuel and transportation expenses, and EPA mandated environmental compliance requirements negatively affect the company's margins and cash flow generating ability."5
- S&P also cut its rating for Ameren Generating Company from BBB- to BB. The rating agency revised its outlook based on the expectation that, "absent improvement to the forward power prices over the next year, the parent's economic incentive to support Ameren Energy Generating could erode."
- Fitch expects that, "cash flow and credit metrics will continue to weaken in 2012."

A recent UBS Utilities report, "AEE: Capex Cuts Conserve Cash" highlights the mid-construction



cancellation of the Newton scrubber and the postponement of the helper ESP installation at the E.D. Edwards coal plant in order to "mitigate cash burn at GenCo." UBS concludes that this move reflects "the recent compression in gas/power forwards and effectively non-existent capacity revenue." The UBS report also warns that Ameren could pursue a Ch.11 restructuring of Ameren Generating Company if market prices do not improve.⁸

Ameren has acknowledged the risks cited in the As You Sow's shareholder proposal that are noted above. Although Ameren has announced retirements of two of its oldest coal plants (the Merediosa and Hutsonville Energy Centers in IL) due to anticipated environmental compliance costs, other old coal plants in the company's fleet, particularly its merchant fleet, are also at risk.

Ameren admits that its continued reliance on coal has the potential to adversely impact the company but it has not disclosed its plan to mitigate these material risks to shareholder value.

Ameren's Generation Fleet

In 2011, coal represented 85% of Ameren's total electric generation, excluding purchased power. ⁹ Its merchant fleet is 98% coal-based. ¹⁰ Coal's share of Ameren's power generation increased in three of its four operating segments from 2009 -2011:

Power Generation¹¹

			Natural		
	Coal	Nuclear	Gas	Renewables	Oil
Ameren					
2011	85%	12%	1%	2%	*
2010	85%	12%	1%	2%	*
2009	83%	13%	1%	2%	*
Ameren Missouri					
2011	77%	19%	1%	3%	*
2010	77%	19%	1%	3%	-
2009	75%	21%	*	4%	-
Merchant					
Generation					
2011	98%	-	2%	-	*
2010	98%	-	2%	-	*
2009	99%	-	1%	-	*
Genco					
2011	99%	-	1%	-	*
2010	99%	-	1%	-	*
2009	100%	-	*	-	*
* is <1% of total fuel supply					

Among its operational risks, Ameren recognizes "significant expenses for older generating equipment to operate at peak efficiency." The average age of Ameren's coal units is 46.7 years and the average capacity is 369 MW. The company's regulated fleet has an average age of 45 years with a 456 MW average unit capacity, while its merchant coal units have an average age of 48 years with a 294 MW capacity average. The Meredosia and Hutsonville coal units that



Ameren is closing range from 52 to 64 years in age. Most of the coal units in its fleet after retirement of these plants will be more than 45 years old.

Utility analysts agree that older, smaller plants without pollution control technology are uneconomical. 13 Of Ameren's remaining merchant coal units, 11 lack SO_x controls (scrubbers), 10 lack NO_x controls (SCR or SNCR), and 10 lack mercury controls. Within Ameren's remaining regulated fleet, all 12 units lack mercury controls and 10 units lack both scrubbers and NO_x controls (SCR, SNCR). 14

Fitch Ratings ranked Ameren second among the top ten U.S. utilities with coal plants lacking SO_x controls that are at risk of closure; 25% (2,609 MW) of Ameren's total coal capacity is deemed at risk.¹⁵ Bernstein Research estimated that an EPA mandate to install SO_2 scrubbers for MACT for mercury and acid gases would result in the reduction of 16%, or 11,642 GWh, in net generation for Ameren's merchant fleet and a 7% reduction, or 5,306 GWh, in net generation for Ameren's regulated fleet.¹⁶

1. Increasing price and price volatility of coal

Ameren burns over 39 million tons of coal in its 12 utility generating units at 4 plants and 14 merchant generating units at 5 plants.¹⁷ The company sources 98% of its coal from the Powder River Basin in Wyoming; 97% of the coal for its regulated fleet and 99% for its merchant fleet comes from the PRB. The remaining coal is purchased from the Illinois Basin.¹⁸

Low-sulfur PRB coal is the lynchpin of Ameren Missouri's environmental compliance strategy (see section 3, below). Ameren indicates that deliveries from the Powder River Basin have been restricted on occasion due to maintenance, weather, and derailments. Such disruptions in coal deliveries could require "reducing sales of power during low-margin periods, buying higher-cost fuels to generate required electricity, and purchasing power from other sources." ¹⁹

Ameren's total costs for coal under current contracts have increased 16.7% since 2009. The costs for coal under current contracts for the merchant generation arm increased 20.5% since 2009. Ameren has fixed price contracts with Peabody Energy to supply PRB coal through 2017. Beyond that date it will have to hedge the uncertainty of higher coal prices. ²¹

Prices of PRB coal have increased 36% between December 2009 and February 2012, but prices have been volatile – jumping almost 10% higher in April 2011. The price increase and volatility are due to growing demand for PRB's low-sulfur coal, more sales of domestic coal in international markets, declining coal reserves from Central Appalachia and increased mining regulations. Although a mild winter and slow economy have temporarily reduced pressure on coal prices, long term, domestic coal prices will increasingly reflect international demand as coal mining companies export more U.S. coal to take advantage of the higher prices in the international markets.

Industry analysts find that coal "price swings will be more erratic and of greater magnitude.²⁵ This suggests that coal supply, quality, and price problems will only increase as more coal exports, low gas prices, and the growing competitiveness of alternative resources make coal an increasingly less economical choice for electricity generation.

2. Competition from natural gas and alternative generation sources



Ameren states that, "lower realized power prices, higher fuel and related transportation costs and higher depreciation and amortization expenses" have resulted in a decline in earnings to less than a third of earnings a few years ago. ²⁶ The company expects earnings for its merchant generation segment to be under pressure over the near term largely due to low natural gas prices coupled with an uncertain economy and environmental compliance costs. ²⁷

UBS utilities reports that Ameren's merchant fleet is suffering from the "recent compression in gas/power forwards and effectively non-existent capacity revenue." The UBS report also warns that management could pursue a Ch.11 restructuring of Ameren Generating Company, Ameren's merchant arm, if market prices do not improve.²⁸

Deutsche Bank calculates that it is more economical to burn natural gas than coal to generate electricity when natural gas costs \$4-6/mmBtu.²⁹ The Henry Hub price for natural gas is projected to be \$6 in 2025.³⁰ Lazard Ltd. calculated the levelized cost³¹ of electricity for wind, in most cases, as less than that for coal and thin-film, biomass, and geothermal are, in many cases, less than that for coal.³²

In its Statement in Opposition to this resolution, Ameren maintains that coal-fired generation is the least expensive generation option for the company's regulated fleet. However, this is based on projections for gas prices that are substantially higher than other industry estimates. Attachment A shows the estimates for gas prices in Ameren Missouri's IRP, contrasted with the forward prices for Henry Hub and NYMEX Futures. Ameren's base case for gas prices is more than double that of the NYMEX in 2012 and projected prices are 60% to 133% higher than NYMEX by 2023.

According to the EIA, "natural gas combined-cycle units operate at higher efficiency than do older, coal-fired units, which increases the competitiveness of natural gas relative to coal." In its report on "Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011," the EIA compares costs for generating technologies brought on line in 2016. Allowing for regional variation in levelized cost, EIA found that the most expensive advanced combined cycle gas plant costs less (\$70.5/MWh in 2009 dollars) than the least expensive new conventional coal plant (\$85.5/MWh in 2009 dollars). According to EIA, the levelized cost for the least expensive wind power is cheaper (\$81.9/MWh in 2009 dollars) than the least expensive conventional coal plant. 35

The most economical way to reduce risk exposure is to implement energy efficiency programs. Ameren has announced plans to cut energy efficiency investments by \$5 million, down from \$25 million in 2010. ³⁶

3. Increasing capital costs for emissions control and uncertainty over future costs Coal dependent utilities face increased capital expenditures to bring their coal plants into compliance with more stringent environmental regulation of: NO_x, SO₂, ozone, particulates, mercury, acid gases, greenhouse gases, coal combustion waste, and cooling water intake.

Several of the EPA's regulatory initiatives affecting coal plants are proceeding pursuant to court orders, while others are tied up in litigation. Congressional efforts to stop EPA regulations have ended in stalemate. However, it is very probable that, over the decades-long expected life of these investments, coal-dependent utilities will be forced to internalize even more of their



environmental damage costs. Senator Jay Rockefeller, from the coal state of West Virginia, has stated: "Greenhouse gas emissions are not healthy for the earth. It will not go away if we ignore the issue. There will be some additional regulations." 37

In the absence of a national energy policy, utilities face incremental mandates and continued uncertainty over the scope and timing of environmental rules. This further elevates the risks for companies that must decide now whether or not to invest in aging coal fleets.

Ameren operations cause significant health and environmental impacts. Its coal plants are responsible for all of Ameren's mercury emissions and the majority of its SO_2 , NO_x , and CO_2 . Ameren's Labadie plant was rated the fourth worst mercury polluter in the U.S., emitting 1,442 pounds of mercury in 2008. Ameren's Rush Island plant and Newton plant also made the list, ranking 24^{th} and 26^{th} with 669.4 and 661.1 lbs. of mercury emitted in 2008, respectively.³⁸

Given the 2014 deadline for compliance with the new mercury emissions standards, utilities are faced with immediate decisions regarding retirement or reinvestment in their coal-fired generating assets. Ameren retired its Hutsonville and Meredosia coal plants in Illinois largely due to costs of bring these plants into compliance Mercury MATS and the Cross State Air Pollution Rule (CSAPR). As a result of these closures, Ameren and its merchant arm, Genco, each recorded a \$34 million charge to earnings in 2011.³⁹

Ameren has invested \$1.9 billion in capital expenditures for emissions controls since 2003. The company planned to spend an additional \$8.3 billion between 2012 through 2016 to comply with existing and known environmental regulations and to make investments in infrastructure and merchant generation facilities. However, due to a decline in power prices, Ameren's merchant generating segment revised their capital spending plans. The company has announced the deceleration of scrubber installations at their Newton coal plant midway through construction and the postponement of the planned precipitator upgrades at the E.D. Edwards coal plant. According to UBS, this move is intended to "mitigate cash burn at GenCo." Construction activities will be postponed until investment can be justified by visible market conditions.

As part of Ameren Missouri's environmental compliance strategy, the company has entered into a multiyear contract with a single supplier (Peabody) to purchase ultra-low-sulfur coal through 2017 to comply with the CSAPR and other environmental regulations. While the company admits that "other sources of ultra-low sulfur coal are limited and that pollution control equipment installation requires significant lead time to become operational," the company's only risk mitigation plan disclosed is to use existing emission allowances or purchase additional emission allowances to comply with environmental regulations. 43

Pending regulation of the water and waste impacts of coal combustion and the prospect of more stringent enforcement of existing regulations will add to Ameren's capital expenses in the coming years. Bernstein Research estimates that it will cost Ameren \$985 million to install cooling towers on its regulated fleet. This is 7% of its rate base. 44 It estimates that it will cost \$291 million to install on its merchant fleet – or 5% of the company's market capitalization. 45

Ameren faces significant risk due to potential regulation of coal combustion waste (CCW). Ameren manages 25 ash ponds and five landfills. 16 of Ameren's active CCW sites are not



lined.⁴⁶ Bernstein Research determined that Ameren would face significant costs to convert its coal ash from wet to dry facilities.⁴⁷ Ameren's Labadie Power Station ranked 22nd on the list of most polluting power plants for coal ash waste.⁴⁸ One of the two coal ash ponds at the Labadie plant has reportedly been leaking coal ash waste at 35 gallons a minute for nearly two decades. The company pledged to fix all leaks.⁴⁹ Ameren is in the process of obtaining approval for a new 400 acre coal ash landfill at the Labadie plant. The proposed site is located within the Mississippi flood plain and experts warn that toxic metals have a high risk of leaching into groundwater during a flood or earthquake and then migrating down the Missouri River and polluting the drinking water of citizens across the St. Louis region.⁵⁰

Ameren is also currently facing several enforcement actions due to its failure to comply with environmental and safety regulations. Ameren received three notices of violation from the EPA under its New Source Review (NSR) enforcement initiative for its Labadie, Rush Island, and Sioux plants. The NOV was amended to include additional projects at Ameren coal facilities. In January 2011, the EPA filed a complaint that alleges that in performing projects at its Rush Island plant, Ameren violated the NSR provision under the Clean Air Act. The company admits that litigation of this matter could take years to resolve and could require substantial capital expenditures and the payment of substantial penalties.⁵¹

4. Costs and Technical Feasibility of Carbon Capture and Storage for Coal Plants

The FutureGen 2.0 project⁵² to demonstrate CCS technology at Ameren's Meredosia plant was set back when Ameren withdrew from the project, citing fiscal concerns.⁵³ The estimated cost to retrofit one unit at the Meredosia plant is \$1.65 billion.⁵⁴

According to the EIA, the levelized cost of the most expensive advanced combined cycle gas plant with CCS is \$104 per MWH (in 2009 dollars) while the cost of the least expensive advanced coal plant with CCS exceeds \$126 per MWH (in 2009 dollar). The General Accounting Office found that CCS technology will increase the cost of coal-fired electricity by 30% to 80% above current levels. 56

The EPA, in promulgating its rules on Best Available Control Technology for greenhouse gas emissions, recognized that "at present CCS is an expensive technology, largely because of costs associated with CO_2 capture and compression, and these costs will generally make the price of electricity from power plants with CCS uncompetitive compared to electricity from plants with other GHG controls."

Conclusion

Ameren discloses a good deal of information about its coal fleet, which clearly indicates that heavy reliance on coal has made the company vulnerable financially. Coal accounts for 85% of Ameren's generation portfolio now and for the foreseeable future. Its merchant generating segment faces "worsening financial prospects" due to the deteriorating economics of coal as a fuel for electric power production. Yet the company discloses no information regarding the composition or utilization of its fleet beyond 2013. If Ameren has a plan to reduce its exposure to coal and the associated risks discussed above, it has not disclosed that plan to investors.

The company's plan to meet environmental regulations involves – not transitioning to cleaner fuels or renewable resources – but switching to a lower sulfur coal from the PRB, a region that has seen price increases of over 48% in the past 2.5 years and is increasingly in demand in



international markets where prices are more than double U.S. coal prices. Utilizing "ultra" low-sulfur coal, however, does not address the likelihood of more stringent enforcement of existing rules on coal plant pollution or new rules (e.g., coal waste and greenhouse gases) requiring different compliance strategies. Ameren has also drastically cut its budget for energy efficiency, which would have reduced its reliance on coal as fuel source.

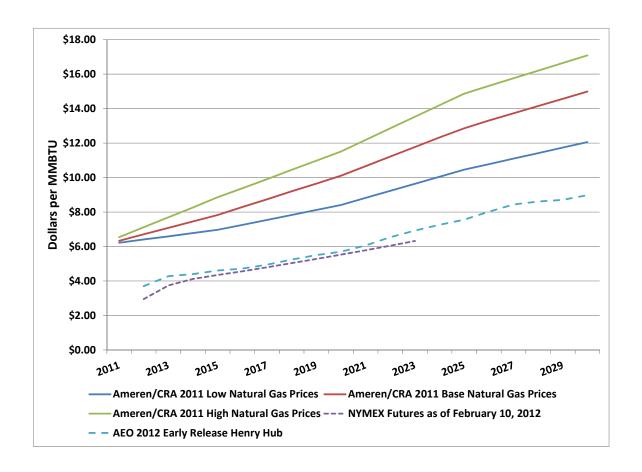
While Ameren acknowledges that these coal risks are having or will have an impact on the financial performance of its generation fleet, the company has not disclosed to investors how the company plans to reduce the financial and operating risks it faces.

At a time when coal's share of the U.S. electric power market is shrinking and coal assets are losing value, investors must exercise enhanced diligence regarding investments in coal-dependent utilities. Enhanced diligence requires greater transparency from companies about their plans to mitigate the risks of reliance on coal.

Investors need for Ameren to disclose its plans to mitigate its coal risks, not simply disclose that they exist. Ameren's mitigation plan should provide specific goals to reduce the risks discussed above so that investors will be able to benchmark our company's progress in reducing these material risks to shareholder value.



Attachment A: Natural Gas Price Projections



¹ "Ameren," Barclays Capital CEO Energy-Power Conference, September 8, 2011, Slide 4.

² Ameren, "Ameren Overview," accessed 2 August 2011, http://ameren.mediaroom.com/index.php?s=18

³ Ameren, *2011 10-K*, accessed March 14, 2012, 11.

⁴ B. Mahendale, D. Pidhemy, and P. W. Smyth, "Time to Retire II? The Update to Coal Plant Retirements," *Fitch Ratings*, November, 17, 2011, 3.

⁵ "Rating Action: Moody's Downgrades Ameren GEnco to Ba2; Places Ameren Illinois on review for Possible Upgrade," *Moody's Investor Service,* Februrary, 29 2012, http://www.moodys.com/research/Moodys-Downgrades-Ameren-Genco-to-Ba2-Places-Ameren-Illinois-on--PR 239060.

⁶ "S&P cuts AmerenEnergy ratings," *Reuters*, February 28, 2012, http://www.reuters.com/article/2012/02/28/idUSWNA118620120228

⁷ "Fitch Downgrades Ameren Genco to 'BB-'; Ameren Illinois Company Outlook to Positive," *Reuters*, January 27, 2012, http://www.reuters.com/article/2012/01/27/idUS172770+27-Jan-2012+BW20120127.

⁸ UBS Utilities, "AEE: Capex Cuts Conserve Cash," Feburary 27, 2011.

⁹ Ameren Corp., *2011 10-K*, accessed March 14, 2012, 11, http://phx.corporate-ir.net/phoenix.zhtml?c=91845&p=irol-sec.

¹⁰ Ameren Corp., 11.

¹¹ Ameren Corp., 11

¹² Ameren Corp., 21

¹³ H. Wynne, F. D. Broquin, and S. Singh, "U.S. Utilities: A Visit to Washington Finds Utility Lobbyists & Environmentalists Agreeing on the Grim Outlook for Coal," *Bernstein Research*, March 9, 2010. M. J. Bradley & Associates, LLC and Analysis Group, "Ensuring A Clean, Modern Electric Generation Fleet while Maintaining Electric Reliability," *M.J. Bradley & Associates, LLC*, August 2010. The Brattle Group, "Potential Coal Plant Retirements Under Emerging Environmental Regulations," December 8, 2010. Fahey, "Why Small Coal-Fired Plants Are Going Away," *Forbes*, 19 July 2010.

¹⁴ "National Electric Energy Data System (NEEDS) v.4.10," Environmental Protection Agency, last updated September 8, 2010, http://www.epa.gov/airmarkets/progsregs/epa-ipm/BaseCasev410.html#documentation.

¹⁵ B. Mahendale, D. Pidhemy, and P. W. Smyth, "Time to Retire II? The Update to Coal Plant Retirements," *Fitch Ratings*, November, 17, 2011, 3.

¹⁶ H. Wynne, F. D. Broquin, and S. Singh, "U.S. Utilities: A Visit to Washington Finds Utility Lobbyists & Environmentalists Agreeing on the Grim Outlook for Coal," *Bernstein Research*, March 9, 2010, 9.

¹⁷ Ameren Corp., 12.

¹⁸ Ameren Corp., 12.

¹⁹ Ameren Corp., 12.

²⁰ Ameren Corp., 12.

²¹ K. Volkmann, "Ameren, Peabody Energy ink their largest coal deal ever," *St. Louis Business Journal*, August 4, 2011, http://www.bizjournals.com/stlouis/news/2011/08/04/ameren-peabody-energy-ink-coal-deal.html?surround=etf&ana=e_article.

- ²² U.S. Energy Information Administration, "Coal News and Markets," Prices for 24 February 2012, accessed March 17, 2012, http://www.eia.gov/coal/news_markets/. United States Energy Information Agency Independent Statistics and Analysis, "Coal News and Markets Report," United States Energy Information Agency, May 6, 2011,
- http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html.
- ²³ United States Energy Information Administration Independent Statistics and Analysis, "Coal News and Markets," *United States Energy Information Administration*, June 6, 2011, http://www.eia.gov/cneaf/coal/page/coalnews/coalmar.html.
- ²⁴ J. Blas, "U.S. Rush to Gas Depresses Coal Prices," *Financial Times*, March 12, 2012, http://www.ft.com/cms/s/0/868d900a-6c43-11e1-8c9d-00144feab49a.html.
- ²⁵ Doyle Trading Consultants, LLC. & Hill and Associates, "The Coal Trading Handbook, 2007 Edition," March 2007, 21-1.
- ²⁶ Ameren, "2011 Corporate Social Responsibility Report," accessed March 14, 2012, 59, http://www.ameren.com/Sustainability/Documents/AmerenCorporateSocialResponsibilityReport.pdf.
- ²⁷ Ameren, "2011 Corporate Social Responsibility Report," 59.
- ²⁸ UBS Utilities, "AEE: Capex Cuts Conserve Cash," February 27, 2011.
- ²⁹ Deutsche Bank Climate Change Advisors, "Natural Gas and Renewables: A Secure Low Carbon Future Energy Plan for the United States," November 2010, Executive Summary, 4.
- ³⁰ US Energy Information Administration. *Annual Energy Outlook 2011*, 78, http://www.eia.gov/forecasts/aeo/pdf/0383(2011).pdf. Futures for natural gas are traded on the New York Mercantile Exchange (NYMEX). Prices for gas delivered to the Henry Hub (a point on the natural gas pipeline) are used as benchmarks for the natural gas market.
- ³¹ "Levelized cost represents the present value of the total cost of building and operating agenerating plant over an assumed financial life and duty cycle converted to equal annual payments and expressed in terms of real dollars to remove the impact of inflation." Energy Information Agency, "Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011," November 2010, http://205.254.135.24/oiaf/aeo/electricity_generation.html
- ³² Lazard, "Levelized Cost of Energy Analysis- Version 5.0," June 2011, 2
- ³³ D. Schlissel, "Financial and Economic Risks of Coal Georgia and Mississippi PSC Cases," (presented March 6, 2012), Slide 9 plots Ameren's projections for natural gas prices against the NYMEX Futures and AEO Early Release Henry Hub prices. <u>See</u> Attachment A, hereto.
- ³⁴ D. Lowrey, "Coal's share of US electricity generation falls below 40% at end of 2011," *Financial Times*, March 12, 2012.
- ³⁵ Energy Information Agency, "Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011," November 2010, Table 2,
- http://205.254.135.24/oiaf/aeo/electricity_generation.html.
- ³⁶ J. Tomich, "Ameren cuts efficiency efforts to conserve bottom line," February 25, 2011, http://www.stltoday.com/business/local/article_51367c2c-cf35-53e8-8b76-56163c706400.html.
- ³⁷ K. Silverstein, "Coal Utilities Take EPA to Court," energybiz, February 29, 2012, http://www.energybiz.com/article/12/02/coal-utilities-take-epa-court&utm_medium=eNL&utm_campaign=EB_DAILY2&utm_term=Original-Member.
- ³⁸ Environmental Integrity, "Dirty Kilowats: America's Top Fifty Power Plant Mercury Polluters," 3,



http://www.environmentalintegrity.org/news_reports/documents/EIP_Top50USPowerPlantMercuryEmitters2010.FINAL042910_000.pdf.

- ³⁹ Ameren Corp., *2011 10-K*, 47
- ⁴⁰ Ameren Corp., *2011 10-K*, 22.
- ⁴¹ UBS Utilities, "AEE: Capex Cuts Conserve Cash," February 27, 2011.
- ⁴² Ameren Corp. 2011 10-K, 58.
- ⁴³ Ameren Corp. *2011 10-K*, 76.
- ⁴⁴ H. Wynne, F. Broquin, S. Singh, "Black Days Ahead for Coal: EPA Air Emissions Regulation & the Outlook for Coal Fired Generation" *Bernstein Research*, 45.
- ⁴⁵ H. Wynne, F. Broquin, S. Singh, "Black Days Ahead for Coal: EPA Air Emissions Regulation & the Outlook for Coal Fired Generation" *Bernstein Research*, 46.
- ⁴⁶ Ameren, "Coal Ash Storage," accessed March 14, 2012,

http://www.ameren.com/Environment/Pages/CoalAshStorage.aspx.

- ⁴⁷ H. Wynne, F. Broquin, S. Singh, "Black Days Ahead for Coal: EPA Air Emissions Regulation & the Outlook for Coal Fired Generation" *Bernstein Research*, 40.
- ⁴⁸ S. Sturgis, "Coal's ticking timebomb: Could disaster strike a coal ash dump near you?" *Institute for Southern Studies*, January 4, 2009, http://www.southernstudies.org/2009/01/coals-ticking-timebomb-could-disaster-strike-a-coal-ash-dump-near-you.html.
- ⁴⁹ J. Tomich, "Leaks from Ameren toxic waste pond in Labadie stir fears," *stltoday.com*, September 1, 2011, http://www.stltoday.com/business/local/article_1077fe32-0c9c-5bbf-a2df-27aaf6499ad5.html; J. Tomich, "DNR, Ameren and the Labadie ash pond seeps," *stltoday.com*, October 20, 011, http://www.stltoday.com/business/columns/jeffrey-tomich/article_06f8de58-fa9c-11e0-aa94-001a4bcf6878.html.
- ⁵⁰ P. Kollipara, "Labadie environmentalists protest zoning change to allow coal-ash landfill," *St. Louis Beacon*, December 15, 2010, http://www.stlbeacon.org/issues-politics/112-region/106912-coal-ash-plant-in-labadie.
- ⁵¹ Ameren Corp., 2011 10-K, 19,
- ⁵² The first FutureGen initiative was launched by the Bush administration in 2003, but was cancelled as a result of cost overruns. Ameren and its partners were awarded funding through the US Department of Energy's FutureGen 2.0 initiative to retrofit the now-shuttered Meredosia plant as a carbon capture and sequestration (CCS) facility. S. Hughes and S. Power, "Clean-Coal Project Advances with \$1 Billion in Funding," August 6, 2010,
- http://online.wsj.com/article/SB10001424052748704657504575411784292302468.html?mod=googlenews_wsj.
- ⁵³ M. Wald, "Coal Project Hits Snag as Partner Backs Off," *New York Times,* November 10, 2011, http://www.nytimes.com/2011/11/11/business/energy-environment/coal-project-hits-snag-as-a-partner-backs-off.html? r=1&emc=eta1.
- ⁵⁴ "FutureGen Alliance Negotiating Option to Purchase Part of Meredosia Energy Center for Advanced Coal Power Project" *November 28, 2011,*
- http://www.futuregenalliance.org/wp-content/uploads/2011/11/FG-option-to-purchase-part-of-Meredosia-plant-112811.pdf.
- ⁵⁵ Energy Information Agency, "Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011, Table 2," November 2010, http://205.254.135.24/oiaf/aeo/electricity_generation.html.

⁵⁶ General Accounting Office, "Coal Power Plants: Opportunities Exist for DOE to Provide Better Information on the Maturity of Key Technologies to Reduce Carbon Dioxide Emissions," *GAO-1-675*, June 16, 2010, http://www.gao.gov/products/GAO-10-675.

⁵⁷ U.S. EPA of Air and Radiation, "PSD and Title V Permitting Guidance for Greenhouse Gases," March 2011, 42, http://www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf.